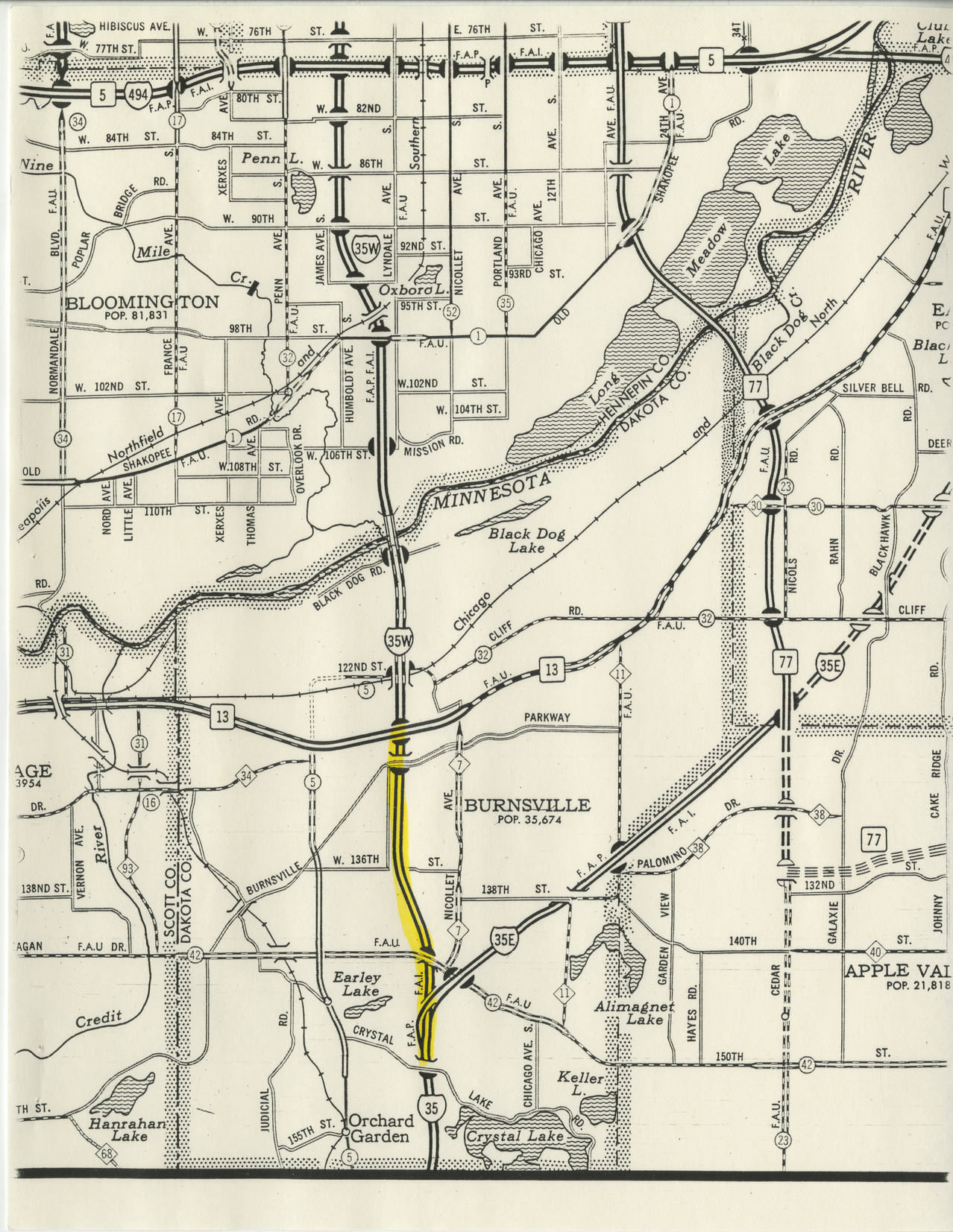
# Transportation Analysis

TA-M363
TH 35, 35W FROM TH 35E to TH 13





PREPARED BY
THE MINNESOTA DEPARTMENT OF TRANSPORTATION
PROGRAM MANAGEMENT DIVISION
TRAFFIC FORECASTS SECTION


HIBISCUS AVE.
W. 77TH ST.
W. 76TH ST.
E. 76TH ST.
5
494
F.A.P.
F.A.I.
80TH ST.
W. 82ND ST.
W. 84TH ST.
84TH ST.
Penn L.
W. 86TH ST.
Southern
W. 90TH
Nine
BRIDGE RD.
POPLAR BLVD.
Mile
Cr.
BLOOMINGTON
POP. 81,831
98TH ST.
92ND ST.
35W
LYNDALE
JAMES AVE.
NICOLLET
PORTLAND
CHICAGO
93RD ST.
Oxboro L.
95TH ST.
W. 102ND ST.
W.102ND ST.
W. 104TH ST.
NORMANDALE
FRANCE
PENN
HUMBOLDT AVE.
F.A.P. F.A.I.
F.A.U.
Northfield
SHAKOPEE
W. 106TH ST.
MISSION RD.
W.108TH ST.
110TH ST.
OVERLOOK DR.
NORD AVE.
LITTLE AVE.
XERXES
THOMAS
OLD
Long
HENNEPIN CO.
DAKOTA CO.
MINNESOTA
Black Dog Lake
BLACK DOG RD.
Chicago
CLIFF RD.
F.A.U.
122ND ST.
PARKWAY
Meadow Lake
RIVER
Black Dog Cr.
North
SILVER BELL RD.
NICOLS
RAHN
BLACK HAWK
CLIFF
77
35E
13
BURNSVILLE
POP. 35,674
W. 136TH ST.
138TH ST.
138ND ST.
VERNON AVE.
River
SCOTT CO.
DAKOTA CO.
BURNSVILLE
F.A.U DR.
F.A.U
F.A.I.
F.A.P.
PALOMINO DR.
Earley Lake
CRYSTAL LAKE RD.
Credit
Hanrahan Lake
JUDICIAL RD.
155TH ST.
Orchard Garden
35
Crystal Lake
CHICAGO AVE. S.
Keller L.
Alimagnet Lake
VIEW
GARDEN
HAYES RD.
CEDAR
140TH ST.
150TH ST.
132ND ST.
GALAXIE
CAKE RIDGE
JOHNNY
APPLE VAL
POP. 21,818

SF-00006-05 (4/86)

DEPARTMENT : OF TRANSPORTATION

STATE OF MINNESOTA

# Office Memorandum

DATE : February 22, 1988

TO : Willis Enloe
District Material Engineer
District 9 - Oakdale

FROM : George M. Cepress
State Traffic Forecast Engineer
Traffic Forecast Section

PHONE : 296-0217

SUBJECT : TH 35, 35W From TH 35E to TH 13
TA-M363

Estimated Average Weekday Traffic (AWDT) volumes are presented in schematic form (Figure 1) for the year 2010 on the above subject route. In addition, 2010 AWDT turning movements have been provided for the TH 35W - Cliff Road Interchange. Furthermore, Table 1 presents ESAL calculations for the heavy load section of TH 35W between TH 35E and TH 13.

Volumes presented in this report are based on the following data sources:

1. The latest Metropolitan Council/Mn/DOT computer traffic assignments of 2010 AWDT and Heavy Commercial Average Weekday Traffic (HCAWDT) to the year 2000 road network (2010/F2000).

2. Computer traffic assignment of 1980 AWDT to the year 2000 road network (1980/F2000).

3. Loaded link, loaded tree (zone) and point to point analysis of the 2010 AWDT movements which impact the subject route.

4. Current (1986) and historic ADT volumes on TH 35W and cross streets from Mn/DOT flow maps.

5. Current (1986) counts on TH 35W and interchange ramps and loops from the Traffic Management Center (TMC).

6. Current (1985 & 1986) counts on TH 35W and on the CSAH 42 ramps to and from TH 35W taken by District 9 staff.



7. Heavy Commercial Average Daily Traffic (HCADT) flow map counts on TH 35W for 1984 and 1986 from Mn/DOT.

8. Vehicle type distributions taken by Mn/DOT in 1985 and 1986 on TH 35 north of TH 50 and TH 35W at 98th Street respectively.

9. ESAL damage factors based on data from the TH 35 Orchard Garden Weigh Station and the TH 494 WIM site at Bush Lake Road.

In addition, we have examined the TH 35W consultants (Strgar-Roscoe-Fausch, Inc.) computer traffic assignment of AWDT for the year 2010 on their future road network (2010/SRF) and have concluded that the assigned volumes for 2010 on the TH 35W Minnesota River Bridge probably are high while the volumes on a competing parallel route, i.e. TH 77 and the TH 77 Minnesota River Bridge are probably low.

If you have any additional questions, please call Jim Page at 296-1626.

Mn/DOT 29131 (6-78)

SCHEMATIC TURNING MOVEMENT

Year 2010 Traffic Volumes

City or County _____

Location TH35W and CLIFF ROAD

System _____

SPAR TA-M363 Date 2-17-88

DATA SOURCE:

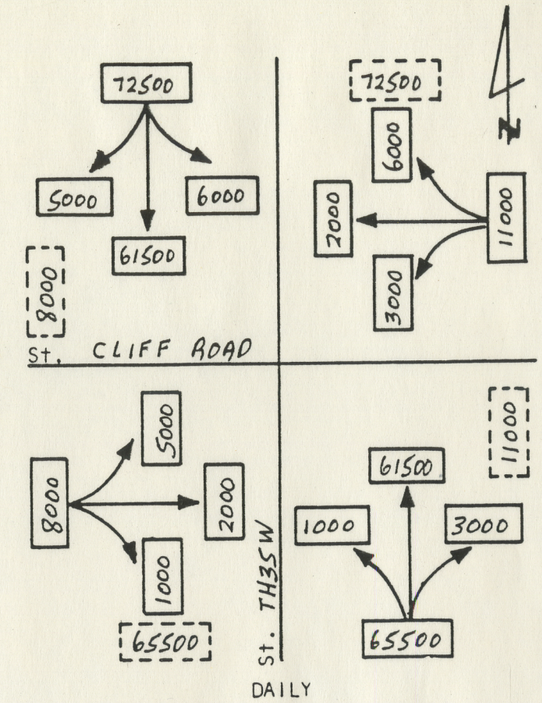
Computer Output ____

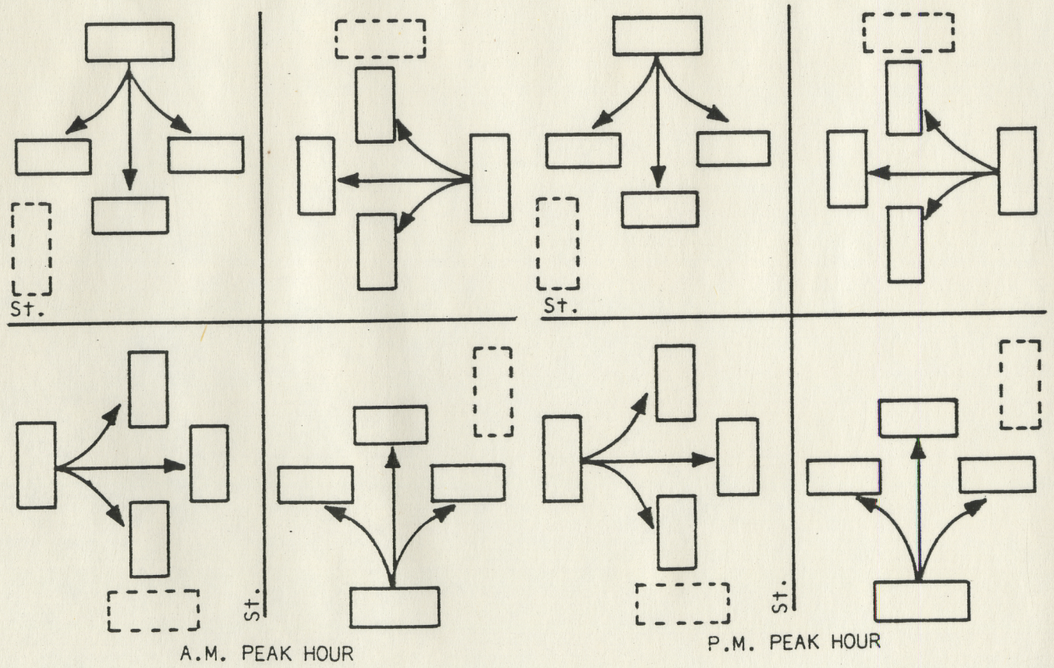
Analysis X

Traffic Count ____

COMMENTS:

BLACKDOG ROAD INTERCHANGE
WITH TH35W REMOVED



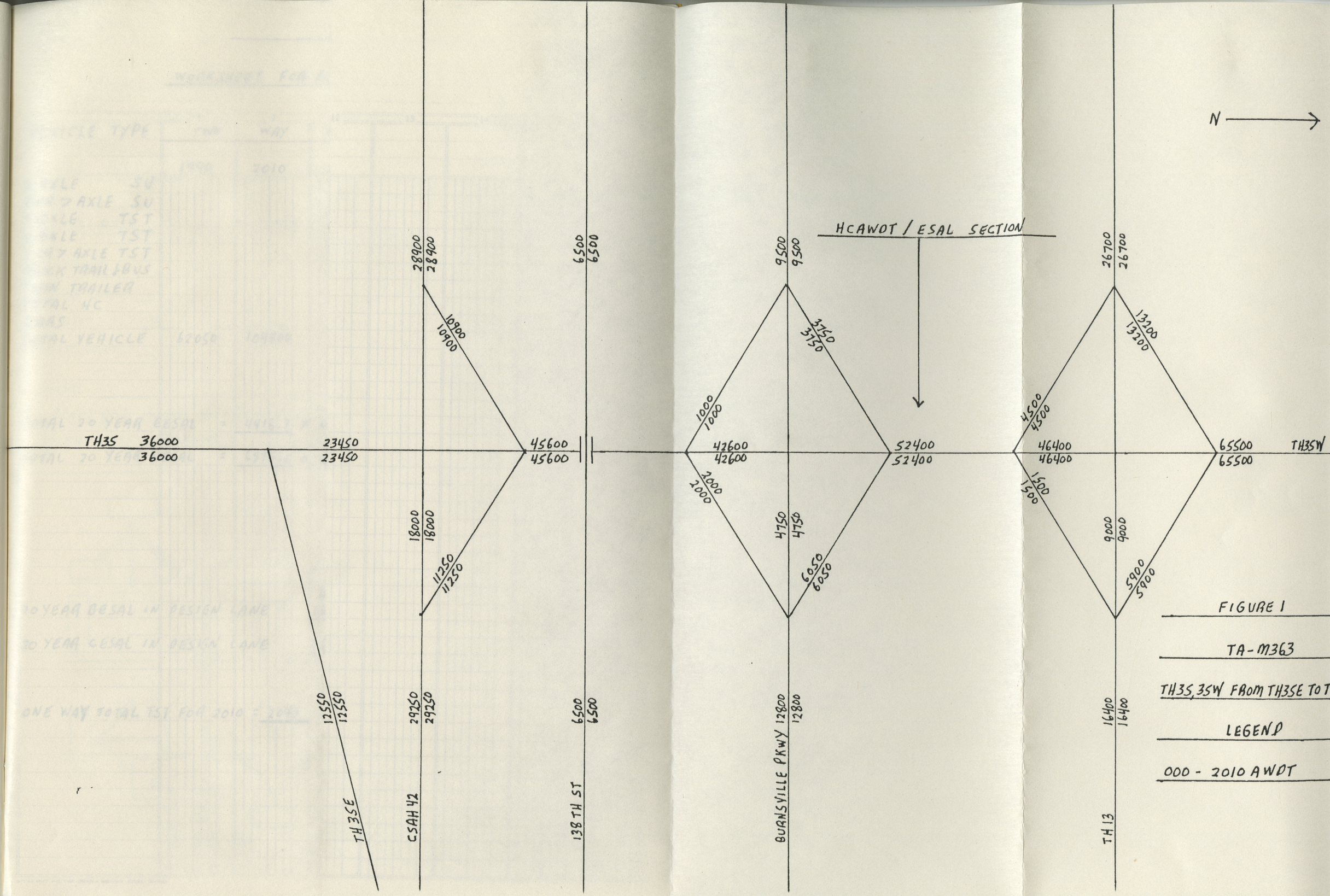



FIGURE 1

TA-M363

TH35, 35W FROM TH35E TO T

LEGEND

000 - 2010 AWDT

TABLE 1 —— TA-M363

| | Initials | Date |
|---|---|---|
| Prepared by | | |
| Approved by | | |

## WORKSHEET FOR ESAL CALCULATIONS ON TH35W FROM TH35E TO TH13

| 1 VEHICLE TYPE | 2 TWO WAY ADT 1990 | 2010 | 3 2000 | 4 PERCENT | 5 BESAL | 6 BADL | 7 CESAL | 8 CADL |
|---|---|---|---|---|---|---|---|---|
| 2 AXLE SU | | | 1502 | 1.8 | .18 | 270.4 | .18 | 270.4 |
| 3 OR 7 AXLE SU | | | 751 | .9 | .45 | 338.0 | .64 | 480.6 |
| 3 AXLE TST | | | 83 | .1 | .38 | 31.5 | .36 | 29.9 |
| 4 AXLE TST | | | 167 | .2 | .44 | 73.5 | .45 | 75.2 |
| 5 OR 7 AXLE TST | | | 3003 | 3.6 | 1.13 | 3393.4 | 1.89 | 5675.7 |
| TRUCK TRAIL & BUS | | | 167 | .2 | .75 | 125.3 | .99 | 165.3 |
| TWIN TRAILER | | | 167 | .2 | .78 | 130.3 | .74 | 123.6 |
| TOTAL HC | | | 5840 | 7.0 | | | | |
| CARS | | | 77585 | 93.0 | .0007 | 54.3 | .0007 | 54.3 |
| TOTAL VEHICLE | 62050 | 104800 | 83425 | 100.0 | | 4416.7 | | 6875.0 |

TOTAL 20 YEAR BESAL = 4416.7 × 365.25 × 20 = 32263994

TOTAL 20 YEAR CESAL = 6875.0 × 365.25 × 20 = 50221875

| | LANES (DLF) 4 (.50) | 6 (.35) |
|---|---|---|
| 20 YEAR BESAL IN DESIGN LANE | 16131997 | 11292398 |
| 20 YEAR CESAL IN DESIGN LANE | 25110938 | 17577656 |

ONE WAY TOTAL TST FOR 2010 = 2043